Equilibrium Price Dispersion in Retail markets for Prescription Drugs

This paper seeks to demonstrate the empirical importance of price dispersion that arises from imperfect information by examining the retail market for prescription drugs.
Differences in pharmacy service or location do not appear to fully explain the observed price variation. The paper estimated that pharmacy effects account for at most one-third of the variation in drug prices about their means. The central finding of this study is that observed price distributions are consistent with the predictions of models based on consumer search.
Many previous literature concluded that price dispersion arises from imperfect consumer information.

The paper reaches a similar conclusion but uses different methods and exploits cross-sectional variation instead of time variation to identify the effects of search and information, and it directly addresses the role of product heterogeneity in generating dispersion. Moreover, price data in this paper come from stores competing within well-defined local markets, so the results can be more appropriately interpreted in the context of equilibrium price dispersion models.

The Regression on Dispersion using model in Figure A) giving that the dependent variable is the price range. The estimates are obtained using GLS shown that there is only purchase frequency (PFREQ) that is statistically significant and has a negative coefficient.

$$\mathrm{RANGE}_{ij} = \beta_0 + \beta_1 \mathrm{PFREQ}_i + \beta_2 \mathrm{AWP}_i + \beta_3 \mathrm{BR1}_i + \beta_4 \mathrm{BR2}_i + \beta_5 \mathrm{NEWB}_i + \sum_{k=6}^{25} \beta_k D_{ik} + \epsilon_{ij}.$$

Figure A

Meanwhile other variables are not statistically significant, but it suggests that prices are more dispersed for generics than for branded drugs and prices are less dispersed in Newburgh than in Middletown.

The author also uses an alternative approach since it has to correct the Pharmacy effect from pharmacy heterogeneity by calculating the dispersion in residual. The result shows that the pattern of coefficient is almost the same.

For the margin, it is impossible to calculate exact maring since the costs are unobservable. The author assume that assume that cost is equal to 85 percent (70 percent) of listed AWP for branded (generic). The estimated result is in line with search theory that is the purchase frequency is negative and statistically significant.

The interesting fact is that the price of prescription drugs vary in wide range of price even in the same area. The extent to which price dispersion is related to consumer search has important implications for policies affecting the costs of acquiring price information. Thus the absence of advertising or available information may result in higher price and much more price dispersion.